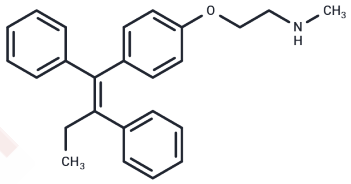
Data Sheet (Cat.No.T12148L)

TargetMol

N-Desmethyltamoxifen

Chemical Properties



CAS No. : 31750-48-8

Formula: C25H27NO

Molecular Weight: 357.49

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	N-Desmethyltamoxifen, the principal metabolite of tamoxifen in humans, serves as an efficacious modulator of ceramide metabolism within human AML cells by inhibiting ceramide glycosylation, hydrolysis, and sphingosine phosphorylation. Although it demonstrates weak antiestrogenic properties, it acts as a protein kinase C (PKC) inhibitor with a potency ten times greater than that of tamoxifen.
Targets(IC50)	Estrogen Receptor/ERR,Others,Endogenous Metabolite,Drug Metabolite,PKC
In vitro	N-desmethyltamoxifen, resulting from the CYP3A4/5-mediated catalysis of tamoxifen, is the major primary quantitative metabolite of tamoxifen. N-desmethyltamoxifen (20-500 ng/ml; 48 hours) has a profound inhibitory effect upon all seven glioma lines (T98G, U87, U138, U373, ALW, AUK, CAS cells). N-desmethyltamoxifen (1.5-10 μM; 114 hours) suppresses the growth of MCF 7 human mammary carcinoma cells. [1][2][3].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7973 mL	13.9864 mL	27.9728 mL
5 mM	0.5595 mL	2.7973 mL	5.5946 mL
10 mM	0.2797 mL	1.3986 mL	2.7973 mL
50 mM	0.0559 mL	0.2797 mL	0.5595 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Vertosick FT Jr, et al. A comparison of the relative chemosensitivity of human gliomas to tamoxifen and n-desmethyltamoxifen in vitro. J Neurooncol. 1994;19(2):97-103.
Morad SA, et al. Modification of sphingolipid metabolism by tamoxifen and N-desmethyltamoxifen in acute myelogenous leukemia--Impact on enzyme activity and response to cytotoxics. Biochim Biophys Acta. 2015 Jul; 1851(7):919-28.
Reddel RR,et al. N-desmethyltamoxifen inhibits growth of MCF 7 human mammary carcinoma cells in vitro. Eur J Cancer Clin Oncol. 1983 Aug;19(8):1179-81.
Seong Hwan Kim,et al. Use of Antidepressants in Patients with Breast Cancer Taking Tamoxifen. J Breast Cancer. 2010 Dec;13(4):325-336.

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